STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

SOUTHEAST REGIONAL DIRECTOR'S OFFICE

6860 GLACIER HIGHWAY
PO Box 112506
JUNEAU, AK 99811-2506

PHONE: (907) 465-1763
TTY/TDD: (907) 465-4647
FAX: (907) 465-2016

April 6, 2006

Mr David C Miller
Division Administrator
US Department of Transportation
Federal Highway Administration
Alaska Division
PO Box 21648
Juneau, AK 99802

Re: Juneau Access Improvements, Initial Financial Plan

Dear Mr. Miller,

Enclosed is the Initial Financial Plan for the Juneau Access Improvements project. This plan was prepared in accordance with the FHWA Financial Plan Guidance (Guidance).

This Financial Plan will be updated annually. Annual updates will be prepared by June 30 of each year, beginning June 30, 2007, so that legislative funding actions can be incorporated into each update.

As stated in the Guidance this Financial Plan does not require FHWA approval.

Sincerely,
DOT & PF Southeast Region

Malcolm A. Menzies, P.E., L. S.
Director

slm
encl:
cc; Jack Beedle, PE, Design Group Chief

Juneau Access Improvements

Initial Financial Plan

March 2006

State Project No.: 71100

Federal Project Number: STP-000S(131)

Table of Contents

Introduction:

This Initial Financial Plan is prepared to satisfy the Project Financial Plan Requirement under SAFETEA – LU for $100-500 million projects. FHWA approval is not required for this document.

Project Description

The Final Environmental Impact Statement (EIS) for the Juneau Access Improvements Project has identified Alternative 2B, East Lynn Canal Highway to Katzehin with shuttles to Haines and Skagway, as the Preferred Alternative. This alternative would construct a 50.8 mile highway from the end of Glacier highway at Echo Cove around Berners Bay to Katzehin, construct a ferry terminal at the end of the new highway, and run shuttle ferries to both Haines and Skagway from the Katzehin Ferry Terminal.

Project Timeline

The environmental document for this project is an Environmental Impact Statement satisfying the requirements of the National Environmental Policy Act (NEPA). The Draft EIS for this project was issued in June 1997. A Supplemental Draft EIS was released in January 2005. The Final EIS was released in January 2006. The notice of availability of the Final EIS was published in the Federal Register on February 10, 2006. The FHWA will issue a Record of Decision (ROD) after March 14, 2006.

The project has been broken into 5 zones for construction tracking. It is anticipated that these projects will be advertised for construction over the next 3 years with all construction complete by 2010.

1. Cost Estimate

As part of the Final EIS, an Engineer's Estimate (Attachment A) and Engineer's Estimate-Unit Price Analysis (Attachment B) were prepared for Alternative 2B. The Engineers Estimate is based on LIDAR aerial survey data and alignment plan and profile information from the Final EIS Technical Alignment Report.

The estimate breakdown for Alternative 2B, for costs incurring after the ROD, are as follows:

Highway Design Engineering	$ 8,000,000
Mitigation	3,000,000
ROW Acquisition	45,000
Highway ICAP	7,183,000
Highway Construction Engineering & Inspection	12,374,000
Highway Contingencies	11,457,000
Avalanche CIP	2,670,000
Maintenance Building	1,000,000
Highway Construction	143,215,000
Katzehin Ferry Terminal	15,700,000
Vessel Construction	53,000,000
	$257,644,000
Additional Contingency & Rounding	$ 356,000
TOTAL COST ESTIMATE	**$258,000,000**

2. Implementation Plan

In order to facilitate project development the total project was broken into 5 zones plus the new shuttle ferries.

The Zone Descriptions are:

Zone 1: Echo Cove to Antler Slough
Zone 2: Berners Bay Crossing
Zone 3: Lace River to Independence Lake
Zone 4: Independence Lake to Katzehin River
Zone 5: Katzehin River to Katzehin Ferry Terminal

The location and mile points for each Zone are shown on Attachment C. The cost estimate for each zone are as follows:

Zone 1	$ 20,000,000
Zone 2	32,000,000
Zone 3	25,000,000
Zone 4	80,000,000
Zone 5 Highway	21,000,000
Zone 5 Ferry Terminal	16,000,000
Shuttle Ferries	53,000,000
Total Construction	**$ 247,000,000**
Preliminary Engineering & Mitigation	$ 11,000,000
Total Cost Estimate	**$ 258,000,000**

The estimated advertising year and construction completion year for each zone are as follows:

Zone	Advertising Year	Construction Completion Year
Zone 1	2006	2008
Zone 2	2006	2008
Zone 3	2006	2008
Zone 4	2007	2010
Zone 5 Highway	2007	2010
Zone 5 Terminal	2008	2010
Shuttle Ferries	2006	2010

Section 4.3.18 Permits and Approvals of the Final EIS contains a listing of all permits necessary to construct Alternative 2B. All permits will be obtained prior to advertising for construction.

3. Construction Financing

In the final EIS, Section 2.5 Funding Considerations, identifies the proposed funding sources for the total project. Section 2.5 is included as Attachment D.

4. Cash Flow

The 2006-2008 Statewide Transportation Improvement Program (STIP) identifies the proposed project funding for all highway projects in the State of Alaska. The STIP includes the Juneau Access Project. The Juneau Access page of the STIP is included as Attachment E.

5. Other Factors

The cost estimate included in Section 1 of this Initial Financial Plan includes a contingency item. It is the intent of this contingency item to cover cost overuns attributable to increased quantities, unit prices, and inflation.

Special cost containment measures will be considered. The contract procurement methodology (Design/Build, Design/Bid/Build, etc.) will be evaluated from a cost/risk standpoint.

State revenues may be utilized to help fund the project and a $45 million request is being considered in the State Capital Budget. If state funds are not approved the funding plan (STIP) will be adjusted accordingly with any shortage fulfilled with federal-aid.

The Katzehin Ferry Terminal Engineer's Estimate was prepared as a stand alone project. It's Engineer's Estimate of $15,700,000 includes Design, ICAP, Construction Engineering & Inspections, and Contingencies.

STIP funding levels are contingent on State Legislative Authorizations. Schedules will be adjusted as necessary to meet Legislative Authorizations.

ATTACHMENT A

ENGINEER'S ESTIMATE

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name: **Juneau Access**

Project Number: **71100-alt2b_Final**

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
		Basic Bid			
201(1A)	Clearing	Lump Sum	$575,000.00	All Required	$575,000.00
203 (2)	Rock Excavation	Cubic Yard	$6.50	6475600	$42,091,400.00
203 (3)	Unclassified Excavation	Cubic Yard	$2.50	993300	$2,483,250.00
203 (10)	Controlled Blasting	Square Yard	$10.00	594500	$5,945,000.00
301(2)	Crushed Aggregate Base	Cubic Yard	$20.00	10600	$212,000.00
307(3)	EATB	Square Yard	$5.11	858100	$4,384,891.00
401(1)	Asphalt Concrete Pavement	Ton	$23.00	104397	$2,401,131.00
401(2)	Asphalt Cement	Ton	$250.00	6264	$1,566,000.00
501(1)	Bridge Structure	Linear Foot	$4,400.00	10256	$45,126,400.00
602(2)	Structural Plate Pipe	Linear Foot	$600.00	80	$48,000.00
603(17-24)	24-inch Pipe	Linear Foot	$45.00	20708	$931,860.00
603(17-36)	36-inch Pipe	Linear Foot	$59.50	7862	$467,789.00
603(17-48)	48-Inch Pipe	Linear Foot	$76.50	3600	$275,400.00
603(17-72)	72-Inch Pipe	Linear Foot	$108.00	2304	$248,832.00
606(1)	W-Beam Guardrail	Linear Foot	$16.00	29266	$468,256.00
606(11)	Terminal End Section	Each	$2,000.00	182	$364,000.00
611(1)	Riprap	Cubic Yard	$6.00	574500	$3,447,000.00
614(1a)	Monumentation with cases	Each	$500.00	370	$185,000.00
615(1)	Standard Sign	Square Foot	$50.00	4000	$200,000.00
618(1)	Seeding	Lump Sum	$80,000.00	All Required	$80,000.00
633(1)	Silt Fence	Linear Foot	$1.00	186000	$186,000.00
637(1)	MSE Wall	Square Foot	$31.00	543790	$16,857,490.00
637(2)	Screening Structure	Lump Sum	$584,000	All Required	$584,000
640 (4)	Worker Meals and Lodging, or Per Diem	Lump Sum	$1,000,000.00	All Required	$1,000,000.00
640(1)	Mobilization and Demobilizaiton	Lump Sum	$10,975,000.00	All Required	$10,975,000.00
641(1)	Erosion and Pollution Control	Contingent Sum	$370,000.00	All Required	$370,000.00

Prepared by Chuck Hakari Date 09/06/05 Checked by Jack Beedle Date 09/06/05

Engineers Estimate

State of Alaska -- Department of Transportation and Public Facilities -- Southeast Region

Project Name: **Juneau Access**

Project Number: **71100-alt2b_Final**

Item No	Pay Item	Pay Unit	Unit Price	Quantity	Amount
642(1)	Construction Surveying	Lump Sum	$1,400,000.00	All Required	$1,400,000.00
670 (1)	Painted Pavement Markings	Lump Sum	$177,500.00	All Required	$177,500.00
670 (8)	Recessed Pavement Marker	Each	$25.00	6566	$164,150.00
			Basic Bid	Subtotal:	$143,215,349.00

**********Project Summary**********

Project Subtotal:	$143,215,349.00
Contingencies @ 8.00%	$11,457,227.92
Construction Engineering @ 8.00 %	$12,373,806.15
Construction Subtotal:	$167,046,383.07
4.30 % ICAP	$7,182,994.47
Highway Construction Total	$174,229,377.54

Preliminary Development	$8,000,000.00
Mitigation	$3,000,000.00
Right of Way	$45,000.00
Maintenance Building	$1,000,000.00
Avalanche Control CIP	$2,670,000.00
Highway Sub Total	$189,000,000.00
Terminal Construction	$15,700,000.00
Highway & Terminal Sub Total	$204,700,000.00
Vessel Construction	$53,000,000.00
Project Total	$257,700,000.00

Prepared by Chuck Hakari Date 09/06/05 Checked by Jack Beedle Date 09/06/05

SE Region - Marine Engineering

Project Construction Cost Estimate

PROJECT NUMBER: 71100
PROJECT TITLE: Juneau Access Ferry Terminals
DESCRIPTION: Katzehin Ferry Terminal Option 2 (North & South Breakwaters)

Item No.	Item	Units	Unit Price	Quantity	Amount
1	***General***				
	Mobilization/Demobilization	LS	$700,000	1	$700,000
	Temporary Erosion and Pollution Control	CS	$350,000	1	$350,000
	Constr. Surveying by the Contractor	LS	$150,000	1	$150,000
	Construction Camp Facilities	LS	$350,000	1	$350,000
2	***Mooring Basin & Breakwaters***				
	Dredged Mooring Basin	CY	$8.00	40,000	$320,000
	(Includes placement as upland/breakwater fill where usable)				
	North Rubble Mound Breakwater	LF	$1,800	400	$720,000
	North Sheet Pile Wave Barrier	LF	$1,500	110	$165,000
	Protection Dolphin at Wave Barrier End	EA	$200,000	1	$200,000
	South Rubble Mound Breakwater	LF	$1,800	500	$900,000
	Navigational Aids	EA	$10,000	2	$20,000
3	***Marine Facilities***				
	Pile Supported Bridge Approach Abutment	LS	$100,000	1	$100,000
	20'x150' Steel Transfer Bridge	LS	$900,000	1	$900,000
	50'x80' Steel Bridge Float	LS	$1,600,000	1	$1,600,000
	(w/ Intermediate Ramp & Apron)				
	4-Pile Bridge Float Restraint Dolphins	EA	$250,000	2	$500,000
	5-Pile Breasting Dolphins	EA	$300,000	6	$1,800,000
	Electrical Power and Lighting System (Terminal)	LS	$300,000	1	$300,000
3	***Upland Improvements (Access/Staging Area)***				
	Import Embankment - Borrow	CY	$12.00	50,000	$600,000
	(Classified Materials)				
	Riprap Slope Protection (NIC Breakwaters)	CY	$30	6,000	$180,000
	12" Aggregate Surface Course	CY	$20.00	4,000	$80,000
	(Approx 103,000 sf)				
	Asphalt Concrete Surfacing (2" thick)	Ton	$60.00	1,200	$72,000
	(Approx 103,000 sf)				
	Metal Beam Guardrail	LF	$40	850	$34,000
	Potable Water Supply (Well & Piping)	LS	$200,000	1	$200,000
	Sanitary Sewer (Pkg Treatment Plant/Outfall)	LS	$300,000	1	$300,000
	Diesel Generator System, Bldg & Fuel Storage Tank	LS	$600,000	1	$600,000
	Electrical Power Supply & Area Lighting System	LS	$300,000	1	$300,000
4	***Building Structures***				
	Terminal Building (24'x40')	SF	$450	960.00	$432,000

Item Totals	*$11,873,000*
Estimating & Construction Contingencies @ 10%	$1,187,300
Construction Subtotal	***$13,060,300***
8% Design & Permitting	$1,044,824
8% Construction Admin	$1,044,824
4.3% ICAP	$561,592.90
Project Total =	***$15,711,541***

Prepared by: KDM **Date:** 10/05/05
Checked by: JDB **Date:**

ATTACHMENT B

ENGINEER'S ESTIMATE -- UNIT PRICE ANALYSIS

Juneau Access

Engineer's Estimate – Unit price Analysis

Prepared by

Jack D. Beedle, P.E.

Design Group Chief

SE Region Department of Transportation & Public Facilities

September, 2005

Overview

There are several factors that effect the estimated unit bid prices for the Juneau Access project:

1. Large quantities will provide economies of scale that will result in unit prices significantly lower than usual Southeast Alaska unit prices;
2. Unlimited use of off road equipment will result in lower unit prices.
3. Numerous access points from which to construct the project will result in lower unit prices.
4. Barge access points at Slate Cove near the Berner's/Lace and Antler/Gilkey River Crossings and at Katzehin Ferry Terminal near the Katzehin River Crossing allows use of economical over length and overweight components in construction of the major river crossings.
5. Perhaps the most significant factor is that there will be no public access conflicts, that usually slow down construction, during the duration of the project. This will result in lower unit prices for almost every bid item on the project.

   Working around buildings and maintaining traffic flow can impact efficiency, productivity and unit bid prices by 50% or more. The Juneau Access Project will not contend with private vehicle traffic or work in proximity to buildings any time during construction.

The importance of this last factor is demonstrated by the Juneau Cascade Point Road Project. Bid in December 2004 and currently under construction, this 20' wide by 3.2 mile long project's total price was $810,000 or approximately $250,000 per mile. The project is being constructed in the same area as the Juneau Access Project and had no private vehicle traffic or buildings to contend with. The Cascade Point Road Project included clearing, culverts, excavation and embankment. It did not include base, pavement, and guardrail. A similar project being built while maintaining traffic control would be expected to cost over $500,000 per mile.

Methodology

Quantities were calculated for each Pay Item for each Juneau Access Alternative. Bid Tabulations for projects bid statewide were reviewed for similar pay items and quantities. Unit prices were adjusted up or down to take into account Juneau Access estimating factors and inflation. The Juneau Access Alternative quantities were multiplied by the established unit price to obtain each pay items estimated cost.

Inflation

Estimated inflation since the time the similar projects were bid was based on data from the Federal Bureau of Labor Statistics summarized in the following table:

Year Bid	Anchorage CPI	CPI Adjustment Factor	Producer Price Index	PPI Adjustment Factor
1998	146.9	1.135	146.8	1.134
1999	148.4	1.123	148.9	1.118
2000	151.0	1.104	150.7	1.104
2001	155.2	1.074	150.6	1.104
2002	158.2	1.054	151.3	1.100
2003	162.5	1.026	153.6	1.083
2004	166.7	1.000	166.4	1.000

The Anchorage Consumer Price Index (CPI) identifies inflation in the Anchorage area. The Producer Price Index (PPI) is a measure of inflation on national materials and components of construction. The Anchorage CPI and the PPI show a strong correlation in inflation. The PPI was used in this unit price analysis.

In order to obtain the approximate 2004 cost of items bid in a prior year, the unit price was multiplied by the Year Bid PPI Adjustment Factor. As noted in the item narratives the unit prices are set higher than this amount to allow for 2005 prices.

Item 201 (1A) Clearing
Per Lump Sum

This is a lump sum bid item; however, there are approximately 428 vegetated acres for Juneau Access Alternative 2B and 395 vegetated acres for Alternative 3 that will require clearing. According to the Juneau Access Socioeconomic Report there is approximately $400,000 worth of harvestable timber within the Alternative 2B clearing limits and $450,000 worth of harvestable timber within Alternative 3 clearing limits.

The clearing for Juneau Access will be a large quantity of work, completed with large equipment, and include no traffic interruptions.

The following comparison projects were used:

- Project 69844 Juneau Glacier Highway – Indian Point to Point Louisa. Bid April 1998. Work was clearing 35 acres. New alignment full width clearing similar to Juneau Access, however with a much smaller quantity. The minimum amount bid was $1,200 per acre. The average of the 2 low bids was $1,600 per acre.

- Project 52312 Parks Highway – MP 57-67. Bid May 2001. Work was clearing 181 acres. Low Bid $809.40 per Acre. Average of 3 low bids $1,079.20.

The Glacier Highway project was 1/13 the size of Juneau Access and the Parks Highway project 40% of Juneau Access. Averaging all bids for the two projects results in $1,340 per acre (low bids only average $1,005 per acre). The $1,340 per acre average is 65% higher than the 2001 low bid for this work. Efficiencies in the Juneau Access Project from large quantities, and no public access conflicts, plus the use of a unit price 65% higher than the 2001 project will more than offset the PPI inflation of approximately 10.4% since 2001.

Based on these projects the Juneau Access clearing bid item was estimated at $1,340 per acre and rounded up to the nearest $5,000 for the lump sum amount. Depending on the ROW transfer agreement with the USFS the value of timber harvested within the ROW could reduce the bids.

The net effect on the SDEIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately $55,000 and to decrease Alternative 3 by approximately $10,000.

Item 203(2) Rock Excavation:

Per Cubic Yard

The estimated quantity of Rock Excavation for Juneau Access Alternative 2B is 6,475,600 cubic yards. The quantity for Alternative 3 is 4,060,000 cubic yards.

The following comparison projects were used:

- Project 68035 Ketchikan Airport – West Taxiway Construction. Bid August 2002. Item is Borrow Embankment. Work was to drill, shoot, load, haul and embank 600,000 cubic meters (784,770 cubic yards) of rock at the Ketchikan Airport. Shooting and hauling operations were limited by scheduled airlines operations. Low Bid $4.95 per cubic yard. Average of 3 low bids $5.46 per cubic yard.

Many DOT & PF projects utilize Item 203(3) Unclassified Excavation, which includes rock as well as common excavation. The Rock Excavation work under this pay item will not show up in a search of Rock Excavation Items only. Two large SE Region projects with a significant amount of rock excavation included in the Unclassified Excavation are:

- Project 69844 Juneau Glacier Highway – Indian Point to Point Louisa. Bid April 1998. Work was Unclassified Excavation 339,500 Cubic Yards of which approximately 50% was rock excavation. This work included hauling and embanking. Hauling was performed with street legal trucks. New alignment so traffic control issues were minimal. Some residences nearby. Low Bid $3.20 per cubic yard. Average of 3 low bids $3.23 per cubic yard.

- Project 71483 Haines Highway – M.P. 25.5 to Little Boulder Creek. Bid September 1998. Work was Unclassified Excavation 511,700 Cubic Yards of which approximately 50% was rock excavation. This work included hauling and embanking. Widening and realignment with traffic flow maintained during construction. Low Bid $1.95 per cubic yard. Average of 3 low bids $3.48 per cubic yard.

There has been only one project recently advertised in SE Region that contained a significant amount of Rock Excavation as a bid item.

- Project No. 71811 Ketchikan 3rd Avenue Extension. Bid December 1999. Work was Rock Excavation 151,000 cubic yards. New alignment; extremely close proximity to residential neighborhoods; limitations on fly rock, size of shot, hours of operation, and extensive preblast surveys. Significant penalties for fly rock events. Low Bid $11.00 per cubic yard. Average of 3 low bids $11.67 per cubic yard.

The Ketchikan Airport Project was considered the most reasonable basis of estimate for Juneau Access and was confirmed by the other projects listed. The basic unit price of $5.50 per cubic yard (average of 3 low bids) was adjusted to $6.50 per cubic yard to account for additional expense for preparation work on the steeper areas. Haul has been minimized by the allowance of sidecasting and deep water disposal. The Ketchikan Airport project was constructed in 2003 and 2004. Efficiency was reduced approximately 20 percent due to operational limitations from aircraft traffic. Efficiencies in the Juneau Access project from the use of large off road equipment, minimal restrictions on work, and no public access conflicts or other work restrictions, plus the inefficiencies included in the Ketchikan Airport project will more than offset the PPI inflation of approximately 10% since this project was bid in 2002.

The unit price for Rock Excavation is increased $.25 per Cubic Yard over the SDEIS unit price and the quantities for Rock Excavation are reduced for both Alternative 2B and 3 based on minor alignment changes. The net effect on the SDEIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately $3,165,000 and to increase Alternative 3 by approximately $475,000.

Item 203(3) Unclassified Excavation:

Per Cubic Yard

The estimated quantity of Unclassified Excavation (common excavation only, includes no rock) for Juneau Access Alternative 2B is 993,300 cubic yards. The estimated quantity for Alternative 3 is 2,118,000 cubic yards.

The following comparison projects were used:

- Project 52685 Glenn Highway – MP 61-67 Rehabilitation. Bid September 2000. Work was Unclassified Excavation 86,317 cubic meters (112,212 cubic yards). Traffic flow maintained during construction. Low Bid $2.28 per cubic yard. Average of 3 low bids $2.42 per cubic yard.

- Project 52921 Palmer-Wasilla Extension. Bid June 2001. Work was Unclassified Excavation 96,722 cubic meters (125,739 cubic yards). Traffic impacts during construction. Low Bid $2.18 per cubic yard. Average of 3 low bids $2.60 per cubic yard.

- Project 53989 Parks Highway – MP 37-39. Bid September 2001. Work was Unclassified Excavation 651,570 cubic meters (847,041 cubic yards). Traffic flow maintained during construction. Low Bidder $2.47 per cubic yard. Average of 3 low bids $2.29 per cubic yard.

These three projects all include large quantities of work, but lower quantities than Juneau Access. The low bids for these three projects averaged $2.31 per cubic yard. The averages of the 3 low bidders on each project was $2.44 per cubic yard. All of these projects included traffic maintenance impacts. Inflation from the time these projects were bid is more than offset by no public access conflicts. The Juneau Access Unclassified Excavation unit price was conservatively set at $2.50 per cubic yard.

The unit price is the same as used in the SDEIS, however the quantities of Unclassified Excavation are reduced for both Alternative 2B and 3, based on alignment changes. The net effect on the SDEIS Engineer's Estimate is to decease Alternative 2B by approximately $1,150,000 and to decrease Alternative 3 by approximately $215,000.

Item 203(10) Controlled Blasting
Per Square Yard

The estimated quantity of Controlled Blasting for Juneau Access Alternative 2B is 594,500 Square Yards and the estimated quantity for Alternative 3 is 77,918 Square Yards.

The work to be completed involves large quantities of work and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 71483 Haines Highway – MP 25.5 to Little Boulder Creek. Bid September 1998. Work was Controlled Blasting 63,000 square yard. Work completed while maintaining traffic. Low Bidder $10 per Square Yard. Second Low Bidder $8 per Square Yard.

- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was Controlled Blasting 4,500 Square Yards. Work completed while maintaining traffic. Low Bidder $10 per Square Yard. Second Low Bidder $20 per Square Yard. Third Low Bidder $8 per Square Yard.

Inflation will be offset by large quantities and primarily by no public access conflicts during construction. Based on these two projects the Juneau Access Controlled Blasting unit price was established as $10 per Square Yard.

The pay unit for Controlled Blasting was changed from station in the SDEIS to square yard to more accurately account for the height of the rock cut on the estimated cost for this item. The net effect on the SDEIS Engineer's Estimate is to increase Alternative 2B by approximately $2,585,000 and to decrease Alternative 3 by approximately $1,325,000.

Item 307(3) EATB

Per Square Yard

The estimated quantity of EATB for Juneau Access Alternative 2B is 858,100 Square Yards. The estimated quantity for Alternative 3 is 724,383 Square Yards.

This work will be completed prior to opening the highway to traffic. No traffic control conflicts combined with a large quantity of work will result in competitive pricing.

The estimate for EATB includes the oil, Portland Cement, Crushed Aggregate Base, and EATB processing. The unit price was established as $5.11 per Square Yard based on the attached project comparison and price extensions for all work incorporated into this item. Oil prices were based on 2005 construction project unit prices and are included in the unit price of $5.11 per Square Yard.

The unit price for the EATB is increased $1.36 per Square Yard over the SDEIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the SDEIS Engineer's Estimate for this item is to increase Alternative 2B by approximately $1,027,000 and to increase Alternative 3 by approximately $1,137,000.

EATB

#	NAME	YEAR	QUANTITY (s.y.)	LOW	2ND	3RD	AVG.
55005	N. KENAI SPUR MP 22.0-29.7	2001	161400	$1.01	$0.63	$1.05	$0.90
55068	SEWARD HWY. RUT AND FROST HEAVE REPAIR	2001	490486	$0.84	$0.84	$0.67	$0.78
55657B	DIAMOND BLVD. AND HOME DRIVE REHAB	2002	32501	$0.70	$0.50		$0.60
56583	KENAI PENINSULA RESURFACING PROGRAM	2004	148000	$1.00	$0.68	$1.00	$0.89
	AVERAGES			**$0.89**			**$0.79**

PORTLAND CEMENT

#	NAME	YEAR	QUANTITY (ton)	LOW	2ND	3RD	AVG.
67948	WRG AIRPORT ACCESS RD/ZIMOVIA HWY	2005	40	$173.60	$150.00	$225.00	$182.87
68096	JNU-GLACIER HWY & TRAILHEAD	2005	315	$150.00	$250.00	$350.00	$250.00
68165	MITKOF HWY COASTAL PATH AND HWY	2005	170	$150.00	$175.00	$250.00	$191.67
	AVERAGES			**$157.87**			**$208.18**

CSS-1

THE UNIT PRICE FOR CSS-1 GENERALLY IS THE SAME A ASPHALT CEMENT. SEE ASPHALTCONC. TAB.

USE **$235.50**

Length of Project	73+15	to	2750+00	267685	ft.	
Length of Bridges				0	ft.	
EATB Length				267685	ft.	
Width of Roadway				30	ft.	
EATB Area				8030550	s.f.	or 892283.3 S.Y.
CSS-1	$235.50	per ton				
Portland Cement	$157.87	per ton				
Portland Cement Application Rate for 4-inch depth	4.5	lbs./s.y.				
CAB	$20.60	per c.y.				
CSS-1 Application Rate for 4-inch depth	1.7	gal. per s.y.				
CSS-1 Estimating Factor	240	gal. per ton				
CAB per S.Y. 4-inch depth	0.111	c.y.				

Cost per S.Y. for CSS-1	$1.67
Cost per S.Y. for Portland Cement	$0.36
EATB Processing per S.Y.	$0.79
Cost per S.Y. for CAB	$2.29

Cost per S.Y. of EATB	**$5.11**
TOTAL COST FOR EATB	**$4,555,594.69**

Item 401(1) Asphalt Concrete Pavement:

Per Ton

The estimated quantity of Asphalt Concrete Pavement for Juneau Access Alternative 2B is 104,397 tons. The estimated quantity for Alternative 3 is 90,948 tons.

It is estimated that this work will be accomplished in large segments, possibly as much as one half the entire project prior to allowing the public on the highway. A large quantity of work combined with no traffic impacts will result in bids significantly lower than normal.

The following comparison projects were used:

- Project 71483 Haines Highway – M.P. 25.5 to Little Boulder Creek. Bid September 1998. Work was Asphalt Concrete Pavement, Type II, Class B, 16,900 tons. Work completed while maintaining traffic. Low Bid $20.00 per ton. Average of 3 low bids $25.38 per Ton.

- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was Asphalt Concrete Pavement, Type II, Class B, 17,500 tons. Work completed while maintaining traffic. Low Bid $18.00 per ton. Average of 3 low bids $23.33 per Ton.

- Project 52312 Parks Highway – MP 57-67. Bid May 2001. Work was Asphalt Concrete, Type II, Class A, 66,256 Tons. Work completed while maintaining traffic. Low Bid $18.14 per Ton. Average of 3 low bids $19.35 per Ton.

The Juneau Access project is over 5 times as large as the Haines projects, however, the bids verify that economical paving prices have occurred in large projects near the project area. The Parks Highway Project is the closest in size and more recently completed project and was used for the Juneau Access estimates. The Parks Highway project was bid in 2001. The increase in asphalt cement oil prices is covered under Item 401(2) Asphalt Cement which uses prices for 2005 construction projects. The Parks Highway project's average unit price for Asphalt Concrete Pavement was increased by approximately 20% to cover increased equipment fuel costs for this equipment intensive item. (Note that the PPI inflation since 2001 was approximately 10.4%.) The Juneau Access unit price for concrete Asphalt Pavement was set at $23.00 per Ton based on this comparison.

The unit price for Asphalt Concrete Pavement is decreased $2.00 per ton from the SDEIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the SDEIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately $150,000 and to increase Alternative 3 by approximately $90,000.

Item 401(2) Asphalt Cement

Per Ton

The estimated quantity of Asphalt Cement for Juneau Access Alternative 2B is 6,264 Tons. The estimated quantity for Alternative 3 is 5,460 Tons.

The work to be completed involves large quantities and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 56583 Kenai Peninsula Resurfacing Program. Bid May 2004. Work was Asphalt Cement Grade PG 52-28 1,300 Ton. Work completed while maintaining traffic. Low Bidder $1 per Ton (discounted*). Second and Third Low Bids $230 and $195 per Ton.

- Project 56567 North Kenai Spur – MP 22.0-29.7. Bid December 2004. Work was Asphalt Cement Grade PG 52-28 1,400 Ton. Work completed while maintaining traffic. Low Bid $230. Per Ton. Second Bid $1 per ton (discounted*). Third Bid $270 per Ton.

- Project 55620 Hope Road Pavement Rehabilitation. Bid September 2004. Work was Asphalt Cement Grade PG 52-28 1,750 Ton. Work completed while maintaining traffic. Low Bid $222 per Ton. Second Bid $1 per Ton (discounted*). Third Bid $220 per Ton.

Based on these three recently bid projects, the Juneau Access Asphalt Cement unit price was established as $250 per Ton. Inflation is not a factor as bids were for work to be completed in 2005. Savings from no traffic impacts are accounted for in Item 401(1) Asphalt Concrete Pavement. Unit prices increased by approximately 10% for extra delivery cost.

The unit price for Asphalt Cement is decreased by $100 per ton from the SDEIS unit price and the quantities are adjusted to account for alignment changes. The net effect on the SDEIS Engineer's Estimate for this item is to decrease Alternative 2B by approximately $570,000 and to decrease Alternative 3 by approximately $315,000.

* discounted means that this unit price bid was not included in setting this item's unit price estimate. These discounted unit prices reflect a bidding strategy instead of a realistic unit price bid.

Item 501(1) Bridge Structure

Per Linear Foot

The estimated quantity of Bridge structure for Juneau Access Alternative 2B is 10,256 Linear Foot. The estimated quantity for Alternative 3 is 15,885 Linear Foot.

The Juneau Access bridges will be 33 feet wide and all multi-span bridges will utilize approximately 130' long Bulb Tee Girders.

To date in Alaska there have not been any projects constructed that have similar quantities and construction logistics. The vicinity of major river crossings along the Juneau Access alignments are accessible by barge which allows the use of overlength and overweight components. And as mentioned previously there will be no public access conflicts.

Two projects were used to establish the unit price for Juneau Access:

- Project 60751 Valdez – Dayville Road. Bid June 2004. Work was bridge replacement. Traffic access was maintained during construction to the Alaska Pipeline terminal and to industrial and recreation sites. Bid unit prices are not comparable because of the traffic delay impacts on construction, however the quantity of Bulb Tee Girders (100 girders) was sufficient to obtain a comparison for girder fabrication costs. A price quoted to the contractor for girders delivered to the barge in the Seattle area was $32 per Square Foot. The cost to transport the Bulb Tee Girders to Lynn Canal, construct the substructure including piling and caps, install the girders, and bridge railing is estimated to be 4 times the girder fabrication cost. This results in a unit price of $128 per square foot or $4,224 per Linear Foot for the Juneau Access bridges.

- A project completed in 2002 to construct the San Mateo-Hayward Bridge in San Francisco, CA has similarities to the major Juneau Access bridges. The bridge was constructed across a shallow (0-15' deep) environmentally sensitive bay. The project was constructed with precast, prestressed bulb-tee girders. The San Mateo-Hayward bridge was 4.6 miles long and 60' wide. An adjacent bridge was kept open at all times during construction. This bridge's total in-place cost was $73 per square foot. To adjust this unit price to Juneau Access prices, the $73 per square foot construction cost was increased by 25% for quantity, 20% for weather and 20% for proximity to fabrication facilities. This results in a unit price of approximately $132 per square foot for $4,356 per Linear Foot.

- Based on these two projects Item 501(1) Bridge Structure was estimated at $4,400 per Linear Foot or $133 per square foot.

Check for Reasonableness:

The average bridge costs for 2000-2003 from the Federal Highways – Bridge Construction Unit Cost per Square foot for Federal – Aid Highways in Alaska was $165 per square foot. This average is compiled from several projects having independent bridges with very little economy of scale. They also required maintaining traffic during construction. It is anticipated that the Berners Bay (5,350 Linear Foot) and Katzehin River (2,500 Linear Foot) bridges will experience a much lower unit price because of the quantity. Many of the remaining bridges will bear on rock or roller compacted concrete and will not require a pile foundation. The Juneau Access bridges will also not encounter public access conflicts during construction. Applying a 20% savings to the Statewide average, which is generated from ease of access to the bridge sites, quantity savings, and no public access conflicts results in unit price of $132 per square foot.

The unit price for Bridge Structure is unchanged from the SDEIS. The quantity increased for Alternative 2B due to alignment changes in the Berners Bay area. The quantity for Alternative 3 is unchanged. The net effect on the SDEIS Engineer's Estimate is to increase Alternative 2B by approximately $5,000,000.

Items 603(17-24), (17-36), (17-48) & (17-72)

24", 36", 48" and 72" Pipe

For Juneau Access alternative 2B the estimated quantity of 24" pipe is 20,708 Linear Foot, for 36" Pipe is 7,862 Linear Foot, for 48" Pipe is 3,600 Linear Foot, and for 72" Pipe is 2,304 Linear Foot.

For Alternative 3 the estimated quantity of 24" Pipe is 14,088 Linear Foot, for 36" Pipe is 13,026 Linear Foot, for 48" Pipe is 3,560 Linear Foot, and for 72" Pipe is 3,844 Linear Foot.

The effect that not having to contend with traffic conflict issues is demonstrated by two projects recently bid in Juneau that are currently under construction.

- Project 67471 Juneau – Cascade Point Road. Bid December 2004. Work was 24" Pipe, 2,268 Linear Foot at $48 per Linear Foot, 36" Pipe, 126 Linear Foot at $70 per Linear Foot, 48" Pipe 68 Linear foot at $90 per Linear Foot, and 72" Pipe, 64 Linear Foot at $135 per Linear Foot.

- Project 68097 Juneau – Glacier Highway & Trailhead. Bid January 2005. Work was 24" CSP, 80 Linear foot at $55 per Linear Foot, 30" CSP, 20 Linear Foot at $65 per Linear Foot, 48" Corrugated Aluminum Pipe, 34 linear foot at $250 per Linear Foot, and 72" Corrugated Aluminum Pipe, 62 Linear Foot at $275 per Linear Foot.

The Cascade Point Road is similar to the Juneau Access project in that there are no traffic control issues. The project is completely blocked off to the public and only accessible to contractor forces. The Glacier Highway project must accommodate 780 ADT with minimum roadway closures. Comparing these two projects for 48" and 72" Pipe with similar quantities reveals that the project with no traffic to contend with and no pipes to dig up is approximately ½ as expensive to build.

For the Juneau Access projects the Cascade Point Road project was used as the basis of the estimate. The bid prices are current, the construction conditions are similar and the unit prices only need to be adjusted for quantity.

Unit prices established for Juneau Access are:

24" Pipe:	$45 per Linear foot
36" Pipe:	$59.50 per Linear Foot
48" Pipe:	$76.50 per Linear Foot
72" Pipe:	$108 per Linear Foot

Prices based on $3 per Linear Foot savings on 24" Pipe, 15% savings on 36" and 48" Pipe and 20% savings on 72" Pipe since quantities are so small compared to Juneau Access for the last 3 items.

The unit prices for 24" Pipe and 48" Pipe are increased by approximately 50% over the SDEIS unit prices. Bid items are added for 36" Pipe and 72" Pipe. All quantities are updated to reflect the current alignments. The net effect on the SDEIS Engineer's Estimate from all 603 Pipe items is to increase Alternative 2B by approximately $1,140,000 and to increase Alternative 3 by approximately $905,000.

Item 606(1) W-Beam Guardrail

Per Linear Foot

The estimated quantity of W-Beam Guardrail for Juneau Access Alternative 2B is 29,266 Linear Foot and for Alternative 3 is 8,900 Linear Foot.

This work will be completed prior to opening the highway to traffic. Minimum conflicts combined with a large quantity of work will result in significantly lower prices than normal.

The following comparison projects were used:

- Project 71483 Haines Highway – M.P. 25.5 to Little Boulder Creek. Bid September 1998. Work was W-Beam Guardrail 20,475 Linear Foot. Work completed while maintaining traffic. Low Bid $14 per Linear Foot. Average of 3 low bids $15.04 per Linear Foot.

- Project 71874 Haines Highway – Big Boulder Creek to the Border. Bid December 1999. Work was W-Beam Guardrail 2,662.5 Linear Foot. Work completed while maintaining traffic. Low Bid $12 per Linear Foot. Average of 3 low bids $14.50 per Linear Foot.

- Project 56547 Anchorage International airport Terminal Expansion. Bid June 2003. Work was W-Beam Guardrail 7,650 Linear Foot. Work completed while maintaining traffic. Low bid $14 per Linear Foot. Average of 3 low bids $14.50 per Linear Foot.

- Project 56571 Old Glenn Highway: Glenn Highway to Plumley Road. Bid April 2004. Work was W-Beam Guardrail 14,375 Linear Foot. Work completed while maintaining traffic. Low Bid $16.30 per Linear Foot. Average of 3 low bids $17.77 per Linear Foot.

Juneau Access will have a much larger quantity than these projects and no traffic control conflicts or delays. Based on these projects a unit price of $16 per Linear Foot was established for Juneau Access W-Beam Guardrail.

The unit price for W-Beam Guardrail is decreased $6 per Linear Foot from the SDEIS unit price and quantities are adjusted to reflect current alignments and guardrail warrants. The reason for the $6 per Linear Foot decrease is that the SDEIS unit price included Terminal End Sections in the unit price for W-Beam Guardrail. The current estimate has separate bid items for W-Beam Guardrail and Terminal End Section. The net effect on the SDEIS Engineer's Estimate is to decrease Alternative 2B by approximately $1,235,000 and to decrease Alternative 3 by approximately $235,000.

Item 611(1) Riprap

Per Cubic Yard

The estimated quantity of Riprap for Juneau Access Alternative 2B is 574,500 Cubic Yards. The estimated quantity for Alternative 3 is 164,500 Cubic Yards.

The Riprap for the Juneau Access Project will be generated on site from Rock Excavation. The Rock Excavation item includes drilling, shooting, and embanking or disposing of the rock and the Rock Excavation quantity includes the necessary Riprap quantities. Therefore the unit price for Riprap only needs to include any additional cost for sorting and placing the Riprap on the slopes.

Based on their being no public access conflicts during construction and the large quantities, the extra cost for sorting and placing the Riprap was set at $6 per Cubic Yard.

The unit price for Riprap is decreased by $ 9 per Cubic Yard from the SDEIS unit price. The SDEIS Engineer's Estimates did not account for the Riprap being generated from Rock Excavation. The quantities remain unchanged from the SDEIS. The net effect on the SDEIS Engineer's Estimate is to decrease Alternative 2B by approximately $5,170,000 and to decrease Alternative 3 by approximately $1,480,000.

Item 637(1) MSE Wall

Per Square Foot

The estimated quantity of MSE Wall for Juneau Access Alternative 2B is 543,790 Square Foot. The estimated quantity for Alternative 3 is 77,446 Square Foot.

The work to be completed involves large quantities and will be completed without public access conflicts during construction.

The following comparison projects were used:

- Project 52921 Palmer-Wasilla Extension. Bid June 2001. Work was Mechanically Stabilized Embankment Retaining Walls 1,640 Square Meters (17,712 Square Foot). Work completed while maintaining traffic. Low Bidder $30.93 per Square Foot. Average of 3 low bids $29.14 per Square Foot.

- Project 53989 Parks Highway – MP 37-39. Bid September 2001. Work was Mechanically Stabilized Embankment Retaining Walls 2,360 Square Meters (25,488 Square Foot). Work completed while maintaining traffic. Low Bidder $32.41 Per Square Foot. Average of 3 low bids $30.93 per Square Foot.

- Project 55264 Glenn Highway – MP 100-109; Caribou Creek. Bid November 2002. Work was Mechanically Stabilized Embankment Retaining Walls 3,225 Square Meter (34,830 Square Foot). Work completed while maintaining traffic. Low Bidder $23.15 per Square Foot. Average of 3 low bids $28.55 per Square Foot.

Inflation will be offset by large quantities and no public access conflicts during construction. Based on these three projects the Juneau Access MSE Wall unit price was established as $31 per Square Foot.

Two bid items Gabions and Reinforced Earth Wall in the SDEIS Engineer's Estimate are replaced by one item MSE Wall. Quantities are recalculated to reflect current design and alignments. The net effect on the SDEIS Engineer's Estimate is to increase Alternative 2B by approximately $5,632,000 and to decrease Alternative 3 by approximately $1,724,000.

Item 637(2) Screening Structure

Per Lump Sum

This item was not included in the SDEIS Engineer's Estimate. The purpose of the screening structure is to restrict the Gran Point and Met Point Sea Lion Haulouts from access and view. The area to be restricted extends 3000' either side from the main haulout area. The screening structures will consist of sections of rock thru-cuts, sections of concrete barrier with screening fence on top, and sections of 8' high screening fence. For Gran Point there are 3,750' of rock thru-cut, 1,300' of concrete barrier with screening fence and 950' of 8' high screening fence. For Met Point there are 1200' of rock thru-cut, 1,500' of concrete barrier with screening fence, 1,800' of 8' high screening fence and approximately 1,500' where natural screening and restricted access do not require screening.

For rock thru-cuts the cost is included in the rock excavation item. For estimating the cost of concrete barrier with screening fence the barrier is estimated to be a concrete jersey barrier with a 3-4' high screening fence on top. For estimating the cost of the 8' high screening fence; the fence is estimated to be an 8' high chain link fence with screening fabric.

The following comparison projects were used:

- Project 67408 Skagway – Klondike Highway Jersey Barrier. Bid August 2004. Work was Lump Sum to mobilize and remove 1000' of guardrail and replace with Concrete Jersey Barrier. Work completed while maintaining traffic. Low Bid $99,890 Lump Sum or approximately $100 per Linear Foot including mobilization and removing guardrail.

- Project 73652 Valdez – Ferry Terminal Improvements. Bid May 2003. Work was 8' Chain Link Fence, 1776 Linear Foot. Low Bid $60 per Linear Foot. Average of 3 Low Bids $60.33 per Linear Foot.

Based on these two projects the estimated cost for the Concrete Jersey Barrier with 3'-4' high screening fence is $135 per Linear Foot ($75 for jersey barrier and $60 for fence). The cost of the 8' high screening fence is estimated at $75 per Linear Foot including screening fabric. Lump Sum estimate is based on 2,800 Linear Foot of concrete barrier with screening fence and 2,750 Linear Foot of 8' high screening fence.

The net effect on the SDEIS Engineer's Estimate is to increase Alternative 2B by approximately $584,000.

Item 640(1) Mobilization and Demobilization

Per Lump Sum

There are no quantities associated with Mobilization and Demobilization. This item covers the cost to move personnel, equipment, supplies and incidentals to and from the project site.

The following comparison projects were used:

- Project 60751 Valdez – Dayville Road Reconstruction. Bid June 2004. Work was Mobilization and Demobilization per Lump Sum. Low bid for Mobilization and Demobilization was $2,619,000 or 8.8% of the total bid of $29,643,055.50 Second low bidder was $2,150,000 or 7.3% of their total bid of $29,643,598.00.

- Project 68096 Juneau – Glacier Highway and Trailhead. Bid January 2005. Work was Mobilization and Demobilization per Lump Sum. Low Bid for Mobilization and Demobilization was $700,000 or 7% of their total bid of $9,966,670. Second low bidder was $675,000 or 6.5% of their total bid of $10,342,564.

Based on these projects, Mobilization and Demobilization was set at approximately 7.5% of the total engineer's estimate for all bid items.

The net effect on the SDEIS Engineer's Estimate is to decrease Alternative 2B by approximately $1,025,000 and to decrease Alternative 3 by approximately $3,050,000.

Item 640(4) Worker Meals and Lodging, or Per Diem

Lump Sum

This bid item was not included in the SDEIS Engineer's Estimate. This bid item was added to State Contracts after October, 2004 to comply with Alaska Department of Labor and Workforce Development requirements.

The net effect on the SDEIS Engineer's Estimate is to increase both Alternative 2B and Alternative 3 by approximately $1,000,000.

Item – Highway Contingency

Most of the items included in the engineer's estimate are sufficiently accurate that a contingency is not warranted. The only items that could change based on field geotechnical work are the backslopes in the rock cut areas and the depths of foundation piling at the major river crossings. To cover any overruns due to field changes an 8% contingency was applied to the total project estimate. This means that either the Rock Excavation or the Bridge Structure could overrun by approximately 25% and still be within the estimate or that they could both overrun by approximately 12% and still be within the estimate.

Item – Construction Engineering

This item covers the cost for state forces to inspect, monitor and document the Contractor's construction activities. This project will not require traffic control monitoring or utility construction inspection. On large projects the Construction Engineering is a lower percent of the Engineer's Estimate than on smaller projects. Construction Engineering @ 8% was also used in the SDEIS Engineer's Estimate.

Item – 4.3 % ICAP

The Indirect Cost Allocation Plan (ICAP) is an overhead rate assessed by DOT&PF, on all capital projects. For State Fiscal Year 2006 the rate for FHWA Highway projects has been set at 4.3%. The rate at the time of the SDEIS Engineer's Estimate was 3.55%. The net effect on the SDEIS Engineer's Estimate is to increase Alternative 2B by approximately $1,390,000 and to increase Alternative 3 by approximately $945,000.

Item – Preliminary Development

This item is to cover the cost of project development, design and final permitting. The estimated amounts for this item are the same as used in the SDEIS Engineer's Estimate.

Item – Mitigation

This item is to cover the cost to mitigate for the construction impacts of the alternatives. Some of each alternative's mitigation is included in bid items that cover on site mitigation. The mitigation item is to cover off site mitigation or fee in lieu of mitigation. The amounts shown are based on preliminary discussions with resource agencies.

Item – Right of Way

This item is to cover the estimated cost of acquiring right of way to construct each alternative. Amounts shown are the same as used in the SDEIS Engineer's Estimate.

Item – Maintenance Building

This item covers the cost of constructing a Maintenance Station at Comet for Alternative 2B and Equipment and sand storage at William Henry Bay for Alternative 3. Amounts shown are the same as used in the SDEIS Engineer's Estimate. The $500,000 estimate for the William Henry Bay Building is confirmed by the May 2005 bid to construct the Skagway Klondike Highway Storage Building. This 5,000 square foot building was bid at $482,000 for a similar remote location building. The Comet Maintenance Station is estimated at $1,000,000 to include public restroom facilities.

Item – Avalanche Control CIP

This item is to cover the cost of constructing ammunition storage units, weather stations, and repeaters and to obtain all avalanche maintenance equipment. Costs are taken from the Snow Avalanche Report. Amounts used are the same as used in the SDEIS, however are broken out as an item to allow for easier identification.

Item – Road Assistance

This item was included in the SDEIS Engineer's Estimate. It was to account for the improvements to be constructed by Goldbelt and Coeur on the Cascade Point Road. This item has been deleted since the roadway has been constructed and each alternatives quantities have been reduced by the actual amount of construction that has occurred.

Highway Construction Total

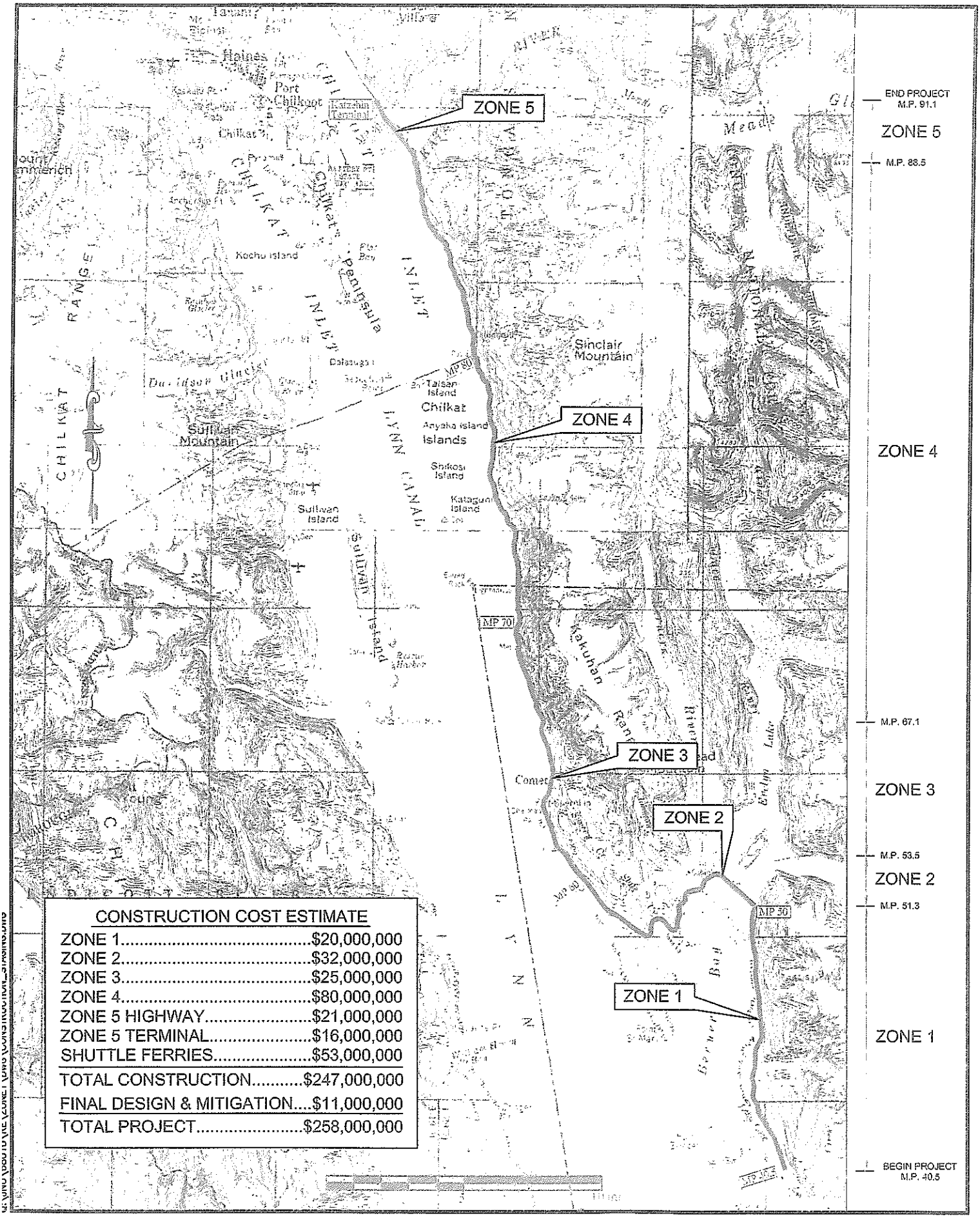
The cumulative effect of new Pay items, different Pay Units, Revised Unit Prices and Quantities and current ICAP, over the SDEIS Engineer's Estimate is to increase the Alternative 2B Highway Construction Total estimate by approximately $5,345,000 and to decrease the Alternative 3 Highway Construction Total estimate by approximately $4,850,000.

Items – Terminal Construction and Vessel Construction

These items are added to the Engineer's Estimate so that each alternatives total estimated cost is provided in one document. For changes from the SDEIS estimates for these items see the updated Terminal Construction Cost Estimates and the Vessel Construction Cost Update.

ATTACHMENT C

ZONE LOCATIONS AND MILE POINTS



CONSTRUCTION COST ESTIMATE	
ZONE 1	$20,000,000
ZONE 2	$32,000,000
ZONE 3	$25,000,000
ZONE 4	$80,000,000
ZONE 5 HIGHWAY	$21,000,000
ZONE 5 TERMINAL	$16,000,000
SHUTTLE FERRIES	$53,000,000
TOTAL CONSTRUCTION	$247,000,000
FINAL DESIGN & MITIGATION	$11,000,000
TOTAL PROJECT	$258,000,000

ATTACHMENT D

FINAL EIS SECTION 2.5 FUNDING CONSIDERATIONS

2.5 Funding Considerations

The 1997 Draft EIS identified several potential funding sources for construction and operation of build alternatives, as funding was an issue of concern raised during development of the Draft EIS. Capital funding sources included the state's excess apportionment funds, supplemental federal allocations (congressional earmarks), revenue bonds, programmed and reallocated federal highway funds (from the NHS section of the STIP), public lands highway funds, ferry boat discretionary funds, state matching funds, and private funds. M&O funds included ferry system fares, highway tolls, and the state general fund, including the state motor fuel tax and licensing/registration fees.

All of the funding sources mentioned in the Draft EIS were also stated in the Supplemental Draft EIS as under consideration as potential funding sources for a build alternative, if selected, with the exception of highway tolls. No tolls are proposed for the highway segments of build alternatives. M&O for new highway segments would be funded out of the state general fund, as with all existing highways in Alaska (vehicles driven on highway segments would pay state fuel tax and therefore would generate state revenue; fuel used by state ferries is exempt from this tax). Fares on marine links, along with state general funds, would fund M&O for those links. No tolls are included in the economic analysis of the alternatives; the projected fares used in the analysis are based on a combination of projected costs and reasonable rates based on past practice.

Current planning for funding construction of the preferred alternative is based on a combination of a project specific congressional earmark, funding from applicable categories in the State's Federal Aid Highway Program, and specific State of Alaska General Fund (GF) allocations (as opposed to GF match for federal funds). Currently the following funding sources have been identified for the three project components:

Highway construction ($189 million required):

- 2005 GF appropriation $5 million
- Safe, Accountable, Flexible and Efficient Transportation Equity Act – a Legacy for Users project specific earmark[16] ($5 million in 2006) $14.5 million
- 2006-10 NHS funding[16] $15 million
- 2007-10 Section 218 funding[17] $57 million
- 2008-10 Section 144 bridge funding[18] $45 million

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[16] These federal fund categories provide a federal share of 91 percent; therefore, 9 percent of the amount shown will come from a GF match.

[16] Same as above.

[17] 23 USC 218, as amended by SAFETEA-LU, established a category of federal funds that was originally designated for the reconstruction of highways in Canada that connect the Southeast panhandle to the rest of Alaska. Currently, they may also be used for reconstruction of the Haines Highway, for the AMHS, and roads to ferry terminals. The federal share is 100 percent.

[18] 23 USC 144 established a category of federal funds that may be used for bridge work including construction of bridges that will replace ferries that were in existence on January 1, 1984. Federal share is 91 percent; therefore, 9 percent of the amount shown will come from a GF match.

• 2006-09 GF appropriation separate from state match for federal funds ($45 million in 2006; $10 million 2008-09)	$52.5 million

Ferry terminal construction ($16 million required):

• 2008-10 Section 218 funding	$16 million

New Vessel Construction ($53 million required):

• 2008-10 Section 218 funding	$38 million
• 2010 Ferry Boat Discretionary (FBD) funding[19]	$15 million

The preferred alternative would be designed and constructed in stages. Funding projected to be available in 2006 totals $55 million. This funding would be sufficient to construct two stages of the project, anticipated to be from Echo Cove to the southeast bank of the Antler River and from the northwest bank of the Lace River to approximately two miles north of Independence Lake. Other stages would be constructed over the next five years as the designs are finalized and funds become available.

[19] FBD funds are federal funds allocated for construction or improvement of ferries or ferry terminals on the NHS. The federal share is 80 percent; therefore, 20 percent of the amount shown will come from a GF match.

ATTACHMENT E

STIP – JUNEAU ACCESS IMPROVEMENTS

Final 2006 - 2008 Alaska Statewide Transportation Improvement Program

Need ID: 19215 **Region:** Southeast

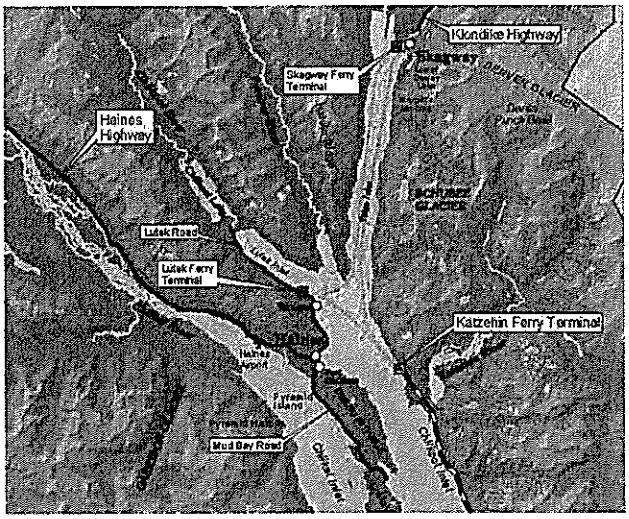
Place Name:

Title:

MARINE HIGHWAY Juneau Access: Katzehin Terminal and Shuttle Ferries

Project Description:

Construct ferry terminal at Katzehin River terminus of State Route 7 construction. Construct shuttle ferries as needed to serve Haines, Skagway & Katzehin traffic.



PHASE	FUNDING	FFY06	FFY07	FFY08	After FFY08
		All amounts x1,000 dollars			
Design	SHAK	0	0	5,000.0	
	Totals:	0.0	0.0	5,000.0	63,700.0

Program Type: FERR
Primary Work: New Construction
Secondary Work: Ferry Boats
Special Financial:

Project Status	Year
Project Start:	
Environmental Clearance:	
Construction Funded:	
Right of Way Authorized:	

Election District(s):
5

PEB Score: **Criteria:**
N/A

Borough/Census Area:
VARIOUS BOROUGHS

Municipal Planning Organization (MPO):
non-MPO

Average AADT:
Pavement Rating:
Sponsor: ADOT/PF
Predominant Functional Class:

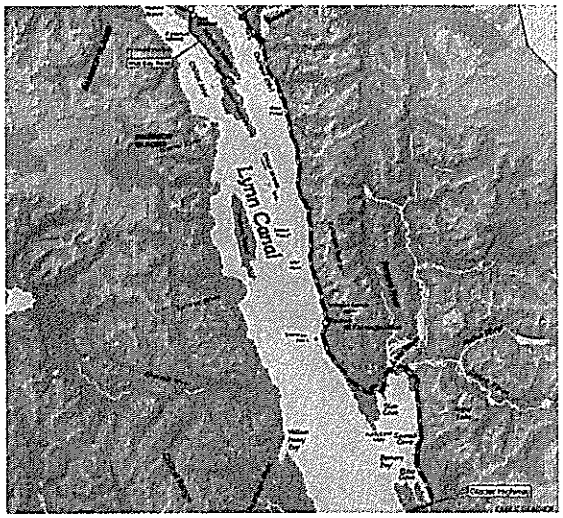
Final 2006 - 2008 Alaska Statewide Transportation Improvement Program

Need ID: 19214 **Region:** Southeast

Place Name:

Title:
Juneau Access: Glacier Highway MP 40.5-91.1

Project Description:
Extend State Route 7 northward from its current terminus to Katzehin River delta, per the preferred alternative in the Final Environmental Impact Statement (EIS).



PHASE	FUNDING	FFY06	FFY07	FFY08	After FFY08
		All amounts x1,000 dollars			
Design	NHS	4,548.5	3,240.0	0	
Design	SM	451.5	360.0	0	
Right of Way	NHS	91.0	0	0	
Right of Way	SM	9.0	0	0	
Construction	144M	0	0	30,000.0	
Construction	218A	0	12,450.0	15,000.0	
Construction	HPRL	5,100.0	2,550.0	2,550.0	
Construction	OSF	3,275.0	0	0	
Construction	PSF	45,000.0	0	3,600.0	
Construction	SM	570.0	285.0	1,400.0	
	Totals:	59,045.0	18,885.0	52,550.0	78,350.0

Program Type: NHS
Primary Work: New Construction
Secondary Work:
Special Financial: Earmark

Project Status	Year
Project Start:	
Environmental Clearance:	
Construction Funded:	
Right of Way Authorized:	

Election District(s):
4

PEB Score: **Criteria:**
N/A

Borough/Census Area:
VARIOUS BOROUGHS

Municipal Planning Organization (MPO):
non-MPO

Average AADT:
Pavement Rating:
Sponsor: ADOT/PF
Predominant Functional Class:

ATTACHMENT F

INITIAL FINANCIAL PLAN -- LETTER OF CERTIFICATION

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

OFFICE OF THE COMMISSIONER

FRANK H. MURKOWSKI, GOVERNOR

3132 Channel Drive
Juneau, Alaska 99801

PHONE: (907) 465-3900
TEXT: (907) 465-3652
FAX: (907) 586-8365

Juneau Access Improvements
Alternative 2B
Initial Financial Plan

Letter of Certification

The State of Alaska Department of Transportation & Public Facilities has developed a comprehensive Initial Financial Plan for Juneau Access Improvement Alternative 2B, Project Number STP-000S(131) in accordance with the requirements of Section 106, Title 23, and the Financial Plan guidance issued by the Federal Highway Administration. The plan provides detailed cost estimates to complete the project and the estimates of financial resources to be utilized to fully finance the project.

The cost data in the Initial Financial Plan include a realistic estimate of future costs based on engineers estimates and expected construction cost escalation factors. While the estimates of financial resources rely upon assumptions regarding future economic conditions and demographic variables, they represent realistic, estimates of available monies to fully fund the project.

We believe the Initial Financial Plan provides an accurate basis upon which to schedule and fund Juneau Access Improvements Alternative 2B. The Department will review and update the financial plan on an annual basis.

To the best of our knowledge and belief, the Initial Financial Plan as submitted herewith, fairly and accurately presents the financial position of Juneau Access Improvements Alternative 2B cash flows, and expected conditions for the project's life cycle. The financial forecasts in the Initial Financial Plan are based on our judgment of the expected project conditions and our expected course of action. We believe that the assumptions underlying the Initial Financial Plan are reasonable and appropriate. Further, we have made available all significant information that we believe is relevant to the Initial Financial Plan and, to the best of our knowledge and belief, the documents and records supporting the assumptions are appropriate.

Mike Barton
Mike Barton, Commissioner

4/5/16
Date